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PATENT APPLICATION

ATTORNEY DOCKET NO. 200313142-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Randy Haagens et al.

Confirmation No.: 5771

Application No.: 10/737,207

Examiner: Anwari, Maceeh

Filing Date: December 16, 2003

Group Art Unit: 2144

Title: METHOD AND APPARATUS FOR HANDLING FLOW CONTROL FOR A DATA TRANSFER

Mail Stop Appeal Brief - Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF REPLY BRIEF

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on July 23, 2008.

This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new ground rejection.)

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Signature:

Respectfully submitted,

Randy Haagens et al.

By

Michael G. Fletcher

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Randy Haagens et al.

§

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Examiner: Anwari, Maceeh

For: METHOD AND APPARATUS
FOR HANDLING FLOW
CONTROL FOR A DATA
TRANSFER

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Atty Docket: 200313142-1

NUHP:0166/FLE/DOO

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Katey P. Hines

**REPLY BRIEF PURSUANT TO 37 C.F.R. §41.41 AND IN RESPONSE
TO THE EXAMINER'S ANSWER MAILED JULY 23, 2008**

This Reply Brief is being filed pursuant to 37 C.F.R. §41.41 and in response to the Examiner's Answer mailed on July 23, 2008. Specifically, this Reply Brief addresses the Examiner's misapplication of Recio et al, International Publication Number WO 00/72142 (hereinafter referred to as "the Recio reference"). By the present Reply, Appellants stress previously made arguments and provide additional arguments regarding assertions by the Examiner in the Examiner's Answer. In addition to the present remarks, Appellants respectfully request that the Board consider Appellants' complete arguments set forth in the previously-filed Appeal Brief.

A. **Examiner's Argument No. 1:**

In the Examiner's Answer, the Examiner reasserted that claims 1-26 are rejected under 35 U.S.C. § 112 second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention. *See* Examiner's Answer, page 3. Specifically, in the Response to Arguments Section, the Examiner attempted to argue that Appellants have defined the term "protocol" as either a process or a series of rules/steps, as well as describing a "protocol" as an entity. *See id.*, page 12, line 18-21. In fact, this argument is simply untrue.

In fact, Appellants have merely pointed out that a process protocol may comprise, for example, a process, an upper layer protocol, or an application that may interact with the protocol stack to communicate with other devices or within the node, as well as with an application protocol. *See* Appeal Brief, page 9, lines 12-15. Moreover, Appellants showed that while the term protocol is used throughout the specification, each protocol is clearly defined, thus distinguishing between the types of protocols disclosed and claimed. *See id.*, page 10, lines 1-15. Indeed, nowhere in the Appeal Brief do Appellants describe a "protocol" as an entity.

It appears that the Examiner has arrived at this erroneous conclusion that Appellants describe the term "protocol" as an entity through misinterpretation of the claim language of independent claims 1 and 11, which recite "notifies the second protocol regarding the unavailability of the plurality of receive buffers," as well as independent claim 26, which recites "notifying a second protocol regarding the

unavailability of the at least one buffer." The Examiner appears to suggest that only an entity (and not a process, an upper layer protocol, or an application that may interact with the protocol stack) may be notified, and, as such, the protocol must be an entity. *See* Examiner's Answer, page 12, lines 20-21. However, Appellants would like to point out that the specification, as originally filed, discloses at least one protocol (which, as shown above, may be a process, an upper layer protocol, or an application that may interact with the protocol stack) that may allow for receipt of a notification of the availability of a buffer. Specifically, paragraph 34 or the originally filed specification states, *inter alia*:

The iWARP protocols 330 may respond to the transport protocol 332 with a *response* 360. The response 360 may indicate that the buffers 337 are *available or unavailable*. If the buffers 337 are available, then the transport protocol 332 may send an acknowledgement packet 348, as discussed above. However, if the buffers 337 are unavailable, *the transport protocol 332 or RNIC 334 may drop the data packet 338.* (Emphasis added).

Thus, the specification discloses at least one instance of a protocol that may allow for receipt of a notification of the availability of a buffer, regardless of its status as an entity. Accordingly, at least due to the content of the disclosure, claims 1-26 set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity, as required under Section 112 second paragraph. As such, for at least the reasons set forth above, Appellants respectfully request the Board reverse the Examiner's rejection under 35 U.S.C. § 112, second paragraph, of independent claims 1, 11, 21, and 26, as well as all claims depending therefrom.

B. **Examiner's Argument No. 2:**

In the Examiner's Answer, the Examiner argued that because claims 1-20 recite language such as "adapted to," this "adapted to" language rendered any remaining recitations following the "adapted to" language optional, and thus, non-limiting. *See* Examiner's Answer, page 13, lines 4-8. To support this position, the Examiner attempts to cite a random assortment of case law. *See* Examiner's Answer, page 13, line 21 – page 14, line 13. However, none of the cited case law stands for the proposition that all recitations subsequent to the phrase "adapted to" fail to limit the scope of the claim. Indeed, it appears that the Examiner has cited case law that supports giving a claim its broadest reasonable interpretation in light of the specification as well as not allowing limiting language from the specification to be read into the claims. Neither of these propositions can be read as supporting the position of the Examiner. Furthermore, even M.P.E.P. Section 2111.04, cited by the Examiner, states, at best, that determination of whether "adapted to" language is a limitation in a claim depends on the specific facts of the case, and does not unilaterally make the language non-limiting, as suggested by the Examiner. *See* M.P.E.P. § 2111.04. Accordingly, it is improper for the Examiner to ignore all recitations of the claims following the term "adapted to."

Moreover, functional language such as "adapted to" is also not indefinite, as suggested by the Examiner. *See* Examiner's Answer, page 13, lines 4-5. Indeed, functional language does not, in and of itself, render a claim improper. *See* M.P.E.P. 2173.05(g). Indeed, functional language must be evaluated and considered, just like

any other limitation of the claim. *See id.* Thus, the Examiner's conclusion that "adapted to" language renders a claim indefinite, and thus, any remaining recitations following the "adapted to" language are non-limiting, is also improper, at least because of the conflict between the Examiner's position and M.P.E.P. § 2173.05(g). Indeed, under the Examiner's misguided interpretation, for example, the only recitation of claim 1 required to be examined is "a processor" in line two of claim 10. The remaining *ten lines* of recitations in claim 1 would become unnecessary to examine, since they "do not limit the scope of the claim." *See* Examiner's Answer, page 13, lines 6-8 and page 14, lines 14-18. This clearly is incorrect.

The Examiner also attempts to argue that the claims recite only structural elements with an intended use, and if the prior art structure is capable of performing the intended use, then the prior art meets the claim. *See* Examiner's Answer, page 14, lines 14-18. However, the Examiner has failed to show that the Récio reference contains any structure that is capable of performing the claimed recitations.

For example, claim 1 recites, *inter alia*, "the processor being further adapted to operate according to a third protocol that *determines whether one of the plurality of receive buffers is available* for a data packet." (Emphasis added). The specification only supports a processor that operates in this claimed manner. *See* Application, paragraph 36, lines 9-12. Furthermore, the Examiner has failed to show any structure in the Recio reference that operates according to a third protocol that *determines whether one of the plurality of receive buffers is available* for a data packet. The Recio reference does describe a data transfer system using queue pairs and

corresponding work queue elements for the transfer of data. *See* Recio, page 8, line 29 – page 9, line 9. Moreover, the Recio reference describes a work queue as containing a work queue element that describes *where* to place incoming data. *See* Recio, page 9, lines 10-11. However, a component that merely describes *where* data is intended to be placed is not analogous to determining *whether* one of the plurality of receive buffers *is available* for placing a data packet. As such, the Recio reference fails to describe a processor being further adapted to operate according to a third protocol that *determines whether one of the plurality of receive buffers is available* for a data packet, as recited in independent claims 1, 11, 21, and 26.

Independent claim 11, which recites, *inter alia*, “the at least one input/output device comprising...a third protocol that determines whether one of the plurality of receive buffers is available for a data packet.” (Emphasis added). Accordingly, there is *no* recitation of “adapted to” language that may characterize the third protocol that determines whether one of the plurality of receive buffers is available for a data packet as functional language. Accordingly, the arguments set forth in the Appeal Brief as to why the Recio reference fails to anticipate these elements apply regardless of the Examiner’s position regarding the “adapted to” language. *See* Appeal Brief, page 14, line 14 – page 15, line 6.

With respect to independent claims 21 and 26, which recite “*determining whether at least one receive buffer is available* for the data packet,” the Examiner in the Examiner’s Answer has again failed to show determining *whether* a receive buffer is available for the data packet, instead citing to sections of the Recio reference

describing *where* data is intended to be placed and acknowledgements transmitted *if* data has reached a destination. *See* Examiner's Answer, page 14, line 20 – page 15, line 4. Therefore, the Examiner has failed to show that the Recio reference describes all elements of independent claims 21 and 26.

Therefore, for at least the reasons set forth above, as well as set forth in the Appeal Brief, the Examiner has failed to show that the Recio reference describes all elements of independent claims 1, 11, 21, and 26 with respect to a determination of *whether one of the plurality of receive buffers is available* for a data packet.

C. **Examiner's Argument No. 3:**

In the Examiner's Answer, the Examiner reasserted that the Recio reference discloses *permitting* an acknowledgement packet to be sent if one of the plurality of buffers is *available*. *See* Examiner's Answer, page 12, lines 13-15 and page 15, line 5. The Examiner has apparently misread, ignored, or misunderstood the portion of the Appeal Brief where it was shown that the Recio reference clearly discloses transmitting acknowledgement packets for *all* frame (data) transfers, that is, transmitting acknowledgements when packets are received *regardless of the availability* of locations for the receiving process to store the packets. *See* Appeal Brief, page 14, lines 7-16. As such, the Recio reference fails to describe *permitting* an acknowledgement packet to be sent, or sending an acknowledgement packet, if one of the plurality of receive buffers is *available*, as recited in independent claims 1, 11, 21, and 26.

Indeed, the Examiner *reiterated* Appellants' position, stating "Recio, discloses placing of incoming data, *acknowledgements*, sequence numbers and a tracking mechanism *for each frame.*" Examiner's Answer, page 15, lines 5-7 (emphasis added). In contrast, independent claims 1 and 11 recite "if one of the plurality of receive buffers is available, permits an acknowledgement packet to be sent to a node that sent the data packet," while independent claims 21 and 26 recite "at least one receive buffer is available...sending an acknowledgement packet to a node that sent the data packet." Thus, the independent claims recite sending an acknowledgement packet *if* one of the plurality of receive buffers is *available*, *not for each frame* as described in the Recio reference and pointed out by the Examiner. As such, the Examiner has failed to show that the Recio reference describes all elements of independent claims 1, 11, 21, and 26 with respect to *permitting* an acknowledgement packet to be sent, or sending an acknowledgement packet, if one of the plurality of receive buffers is *available*, as recited in independent claims 1, 11, 21, and 26.

D. **Examiner's Argument No. 4:**

In the Examiner's Answer, instead of showing that the Recio reference as disclosing *notifying* the second protocol regarding the unavailability of the plurality of receive buffers if one of the plurality of receive buffers is unavailable, as recited in independent claims 1, 11, 21, and 26, the Examiner read a single line from an argument in the Appeal brief that used the term "actively" to modify the claimed "notifying the second protocol." See Examiner's Answer, page 15, lines 10-12. The Examiner went on to state that "actively" is not recited in the claims and further that the specification can not be read into the claims. See *id.* at lines 14-17.

Appellants would like to point out that “actively notifying” is redundant, since the act of notifying necessarily includes an active element. As such, there must be a positive step or active step or act in order to accomplish “notifying.” Regardless, while it is true that independent claims 1, 11, 21, and 26 do not explicitly recite *actively* notifying the second protocol regarding the unavailability of the plurality of receive buffers if one of the plurality of receive buffers is unavailable, the Recio reference fails even to describe *notifying* the second protocol regarding the unavailability of the plurality of receive buffers if one of the plurality of receive buffers is unavailable. Indeed, there is no need to read limitations from the specification into independent claims 1, 11, 21, and 26, i.e. “actively notifying,” because the Recio reference fails to disclose all elements of independent claims 1, 11, 21, and 26 as claimed.

The Recio reference, at best, recites retransmitting frames to a destination when an acknowledgement is *not received by the source*. See Recio, page 23, lines 29-31. Even if, *arguendo*, the lack of transmission of an acknowledgement were due to a receive buffer being unavailable, there is no discussion in the Recio reference of *notifying* a second protocol of the unavailability of a receive buffer. Indeed, the lack of an acknowledgement indicates *only* that a packet was not received, it does not indicate to any protocol *why* the packet was not received, i.e. because of the unavailability of a receive buffer. Lack of transmission of an acknowledgment is not analogous to *notifying* the second protocol regarding the unavailability of the plurality of receive buffers, as recited in claims 1, 11, 21, and 26. Furthermore, the Recio reference also fails to describe if one of the plurality of receive buffers is unavailable, dropping the data packet, notifying the second protocol regarding the unavailability of

the plurality of receive buffers, and *withholding* the acknowledgement packet, as recited in independent claims 1, 11, 21, and 26.

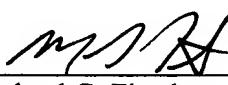
For at least these reasons, Appellants respectfully submit that independent claims 1, 11, 21, and 26, as well as all claims depending therefrom, are not anticipated by the Recio reference. Accordingly, Appellants respectfully request the withdrawal of the rejection of independent claims 1, 11, 21, and 26 under Section 102 based on the Recio reference, and further request allowance independent claims 1, 11, 21, and 26, as well as all claims depending therefrom. Furthermore, Appellants respectfully request favorable consideration of the application and the reversal of the Examiner's final rejection of independent claims 1, 11, 21, and 26, as well as all claims depending therefrom.

Conclusion

The foregoing are reiterative or supplemental points regarding the reasons why the pending claims are allowable. Appellants rely upon all of the reasons advanced in the Appeal Brief, and respectfully request that the Board carefully review the claims in view of these arguments and overturn the Examiner's rejection.

Respectfully submitted,

Date: September 23, 2008


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